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MIPR NO: 91MM1502

TITLE: A PROSPECTIVE EVALUATION OF STRESS FRACTURES/OVERUSE
INJURIES IN A POPULATION OF WEST POINT CADETS

PRINCIPAL INVESTIGATOR: Swain, James H.

CONTRACTING ORGANIZATION: Keller Army Community Hospital
USAMEDDAC
West Point, New York 10996-6000

REPORT DATE: January 15, 1992

TYPE OF REPORT: Annual Report

PREPARED FOR: U.S. ARMY MEDICAL RESEARCH AND DEVELOPMENT COMMAND
Fort Detrick, Frederick, Maryland 21702-5012

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13. ABSTRACT (Maximum 200 words) The study group performed two evaluations during this period. 175 Cadets remain in the study. Nonparticipant are primarily due to resignation from the Academy. Body fat % for the men and women has remained the same. The women have increased weight indicating a gain in muscle mass. Lower extremity injuries have equalized in the two groups. There were more injuries in men (32%) than in women (27%) from January91 to August 1991. Bone density and laboratory values are being automated presently.				
14. SUBJECT TERMS RAII; Stress; Bone; Scintigraphy; Volunteers			15. NUMBER OF PAGES	
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MEDICAL RESEARCH AND DEVELOPMENT COMMAND

ANNUAL REPORT

FY 1991

1. Contract Number: 8916011 (MIRP#: 91MM1502)
2. Principal Investigator: Colonel Jack Ryan MD, Maj Charles Scoville PT (local PI).
3. Date of Report: 15 January 1992
4. Report year from: 1 December 1990 through 30 November 1991
5. Address: Col. Jack Ryan MD Maj. Charles Scoville
MTR Division Chief, Physical Therapy
LAIR MEDDAC
PSF, Ca. 94129 West Point, NY 10996
Tel.415-561-5816 Tel.914-938-4733
7. Project Title: Evaluation of Stress Fractures/Overuse Injuries in a Population of West Point Cadets.
8. Current Staff, with percent of effort of each on project:

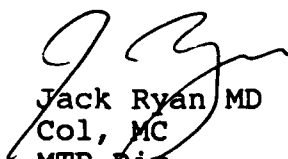
Col Jack Ryan	Principal Investigator	15%
Maj Charles Scoville	Co-investigator	10%
Maj Dean Taylor	Co-investigator	5%
Dan Brooks	Co-investigator	15%
Marjorie Hunt	Co-investigator	15%
Dr. Copley	Co-investigator	5%
Dr. Linburg	Co-investigator	10%
James Swain	Co-investigator	5%
Cindy McClintoc	Co-investigator	5%
Maj John Uhorchek	Co-investigator	5%
Mrs Ruth Travers	secretary phy therapy	5%
Ms Jane Reddington	secretary CI	5%
9. Administrative and Logistic matters: The study group successfully performed two evaluations during this period. Two investigators left active duty (Swain, Linburg). A new local PI was appointed (Scoville). The PI (Ryan) deployed to SW Asia (Oct90- Ap91) and now is assigned to LAIR. A new dual energy x-ray bone densitometer machine was delivered and installed (LUNAR DPX).
10. Summary of expenditures:
Personnel: as noted in #8.
Personnel: TDY for evaluation team
Equipment: Lunar PX delivered May 91
Supplies: n/a
Funds: \$81,710 committed

11. Scientific Progress during year 90-91:

The study group performed two evaluations during this period. 175 cadets remain in the study. Nonparticipant are primarily due to resignation from the Academy. Body fat % for the men and women has remained the same. The women have increased weight indicating a gain in muscle mass. Lower extremity injuries have equalized in the two groups. There were more injuries in men (32%) than in women (27%) from January 91 to August 91. Bone density and laboratory values are being automated presently.

12. Plan for the next year.

Continue to analyze data. Add questions concerning activity level during last year of high school and during study period. Perform evaluation during 13-17 January 1992 and during the Fall 1992.


Jack Ryan MD
Col, MC
MTR-Div
LAIR



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